

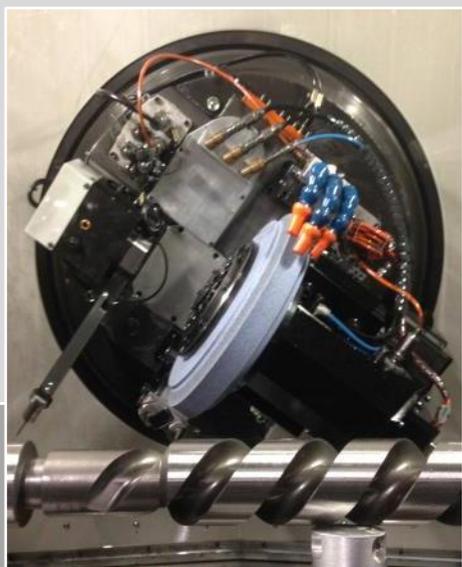


No noise hydraulic pumps

Products presentation



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= ISO 9001 =



Continuum® helical
rotor pumps
Screw pumps



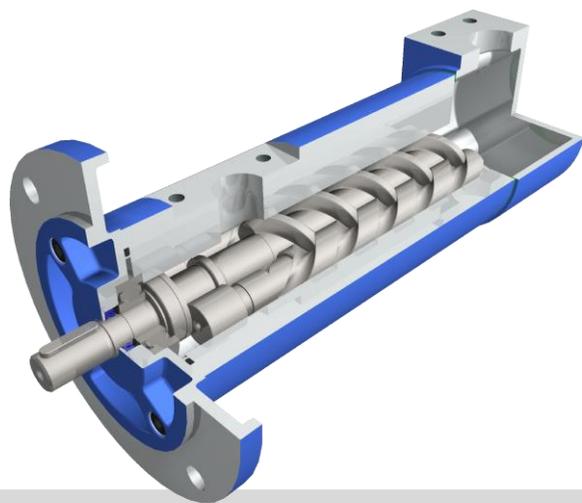
Screw pumps for USA



Seal-less leakage free pumps

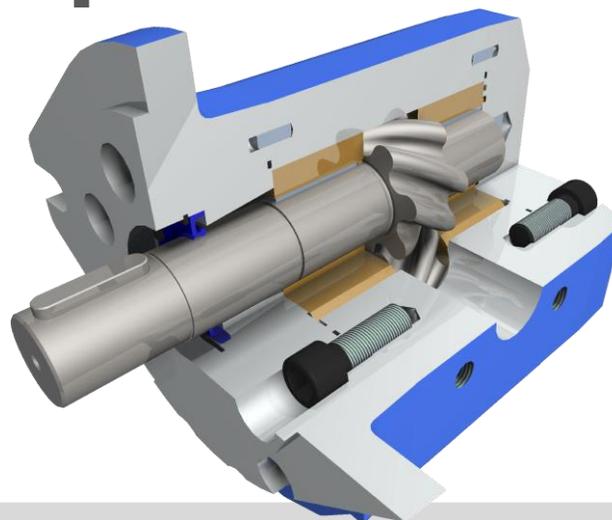
Settima® Meccanica s.r.l.
Phone: +39 0523 3650
FAX: +39 0523 557623
Email: marketing@settima.it
www.settima.it

Settima full product range overview



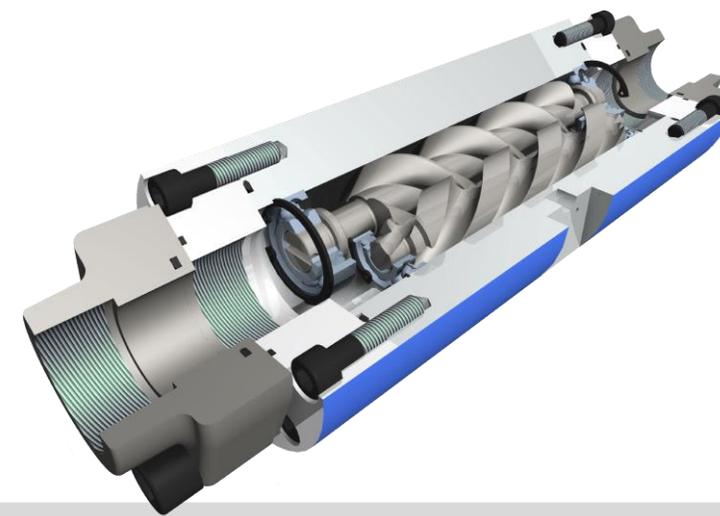
Screw Pump products range

Low noise, low pulsation screw pumps for an **extremely wide** range of applications, up to 100 bar (medium and large flows)



Continuum® products range

No noise, no pulsation helical rotor pumps for **Industrial** and **Mobile** applications, up to 300 bar (small and medium flows)



Other products

High speed rotation, **volumetric metering devices** (small, medium and large flows) and seal-less magnetic coupling, to **prevent leakage**.

Settima Meccanica designs and manufactures hydraulic screw pumps and high pressure helical rotors pumps. Our specialization is the production of no-noise, low-vibration pumps. **Settima** pumps are fit for use in every hydraulic application and in many kinds of systems. They are positive displacement rotary pumps. Moving parts are kept to a minimum. There is only a **rolling** action between the drive screw and the idler ones, without oil encapsulation and trapping. The rolling action eliminates **noise** and **vibrations**.

Screw pumps products range overview



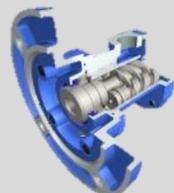
The **SMT** pump can manage **high viscosity** fluids and is profitably used in a wide range of applications, like in **windmill** and in any **oil circulation** activity and **industrial** applications up to **100 bar**.

A model for USA market (**SMAT**) is available.



The **SMT16B** pump has the widest range of applications, including **cooling, filtration, mineral and synthetic oil plants**, and **industrial** applications up to **40 bar**.

A model for USA market (**SMAT16B**) is available.



The **SMT8B** pump is mainly utilized in **compact cooling** and **filtrations** plants and **industrial** applications up to **15 bar**.

A model for USA market (**SMAT8B**) is available.



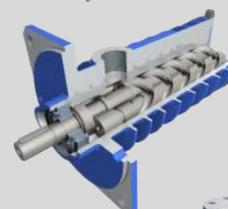
The **SMAPI** pumps are manufactured according to **API 676 3rd edition**. They are used in oil & gas, power generation and **marine** applications for **boiler ignition / feeding** and **fuel transfer** up to **60 bar**.



The **SFO** pump is designed for **lubrication** and **circulation of diesel oil engines**, hydro turbines, and other **marine** applications up to **40 bar**.



The **FOTP** pumps are tandem units (2 fluids, main + spare) that can **handle any fuel oil**. They are especially suited for **marine** applications up to **80 bar**.



The **SM** pump has been produced since 1978. These pumps are used in **lift** and **elevators** applications up to **80 bar** and with VF motors in **energy saving systems**.

A model for USA market (**SMU**) is available.



The **SMTU** pump is designed for the **USA market** only and it's used in **lift** and **elevators** applications up to **1.160 PSI**.

Did you know? **Settima screw pumps** are positive displacement pumps designed with axial flow. Inside of the pump there are only three moving parts. The main screw is the only driven part and transmits the motion to the satellite screws. The satellite screws play also the role of creating pressure sealing areas. **Settima** takes great care in ensuring that all its screw pumps keep the **noise emission to a minimum level**, and are manufactured with the usual **high-quality and high-precision** standard peculiar to all of its production.

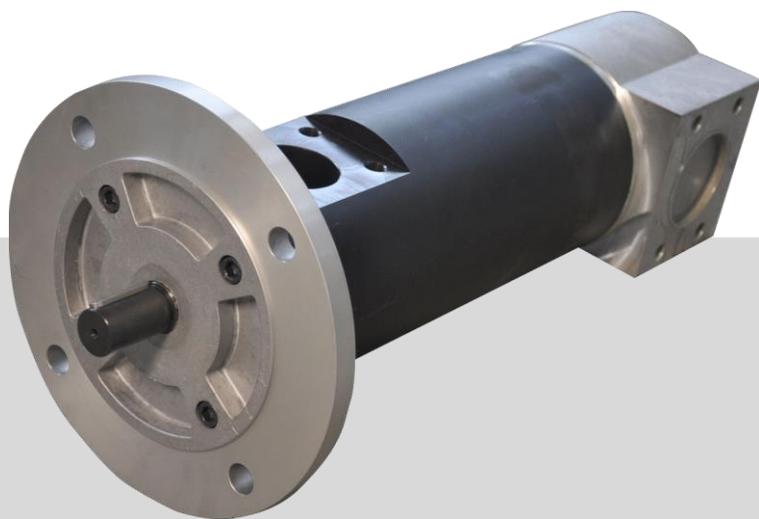


SMT



SMAT (for USA market)

- *Fluid Types: mineral oils, synthetic fluid or emulsions, bunker oils, furnace oils, ecologic fluids, fuel oils (HFO, MDO, LFO, MGO)*
- *Viscosity: from 0,2 to 100.000 cSt*
- *Outlet Pressure: up to 100 bar*
- *Inlet Pressure: from -0,7 bar to 3 bar*
- *Flows: from 4 to 1.220 L/min*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 52 to 68 dB (A) at 2.950 rpm*
- *Temperature Range: from -50° C to +300° C*



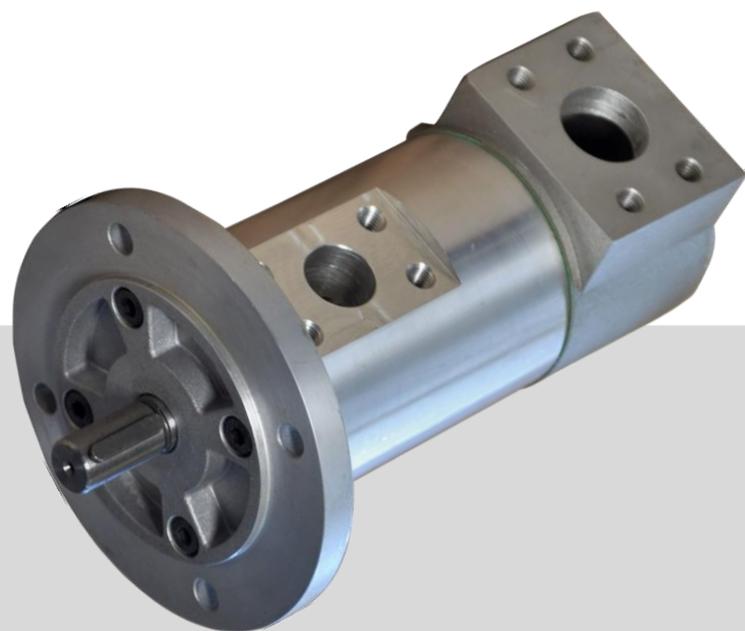
This pump is especially suited for the following applications:

- | | |
|-----------------|--------------------|
| ▪ Cooling | ▪ Oil & Gas |
| ▪ Filtration | ▪ Power Generation |
| ▪ Industrial | ▪ Power Hydraulics |
| ▪ Lube Services | ▪ Tool Machines |
| ▪ Marine | ▪ Windmill |



Did you know? Settima SMT is one of the most versatile products from Settima range of three-screw pumps. The SMT pump is able to manage high-pressures, and therefore it can be utilized for an unrivalled (except for its low-pressure counterpart, the SMT16B) wide range of high-stress applications in very demanding fields, like high-pressure tool machines or marine, without compromising the reliability and the long life-span of the pump itself.

SMT16B SMAT16B (for USA market)



- *Fluid Types: mineral oils, synthetic fluid or emulsions, bunker oils, furnace oils, ecologic fluids, fuel oils (HFO, MDO, LFO)*
- *Viscosity: from 10 to 10.000 cSt*
- *Outlet Pressure: up to 40 bar*
- *Inlet Pressure: from -0,7 bar to 3 bar*
- *Flows: from 4 to 5.500 L/min (GR125-GR180)*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 52 to 68 dB (A) at 2.950 rpm*
- *Temperature Range: from -50° C to +300° C*

This pump is especially suited for the following applications:

- | | |
|-----------------|--------------------------|
| ▪ Cooling | ▪ Petrochemical Industry |
| ▪ Filtration | ▪ Power Hydraulics |
| ▪ Industrial | |
| ▪ Lube Services | |
| ▪ Marine | |



Did you know? Settima SMT16B is one of the most versatile products from Settima range of three-screw pumps. The SMT16B is designed precisely to manage the medium-pressures typical of a wide range of applications, like lube services, industrial or power hydraulics, while remaining extremely competitive on the market from the final price perspective.

SMT8B SMAT8B (for USA market)

- *Fluid Types: mineral oils, synthetic oils*
- *Viscosity: from 10 to 15.000 cSt*
- *Outlet Pressure: from 0 to 15 bar*
- *Inlet Pressure: from -0,5 bar to 1,5 bar*
- *Flows: from 15 to 80 L/min at 1.450 rpm*
- *Shaft Speed: from 500 to 1.750 rpm*
- *Acoustic Emissions: from 55 to 63 dB (A) at 1.750 rpm*
- *Temperature Range: from -20° C to +150° C*



This pump is especially suited for the following applications:

- | | |
|-----------------|--------------|
| ▪ Cooling | ▪ Mobile |
| ▪ Industrial | ▪ Power |
| ▪ Filtration | ▪ Generation |
| ▪ Lube Services | ▪ Windmills |



Did you know? Settima SMT8B is a pump designed for low pressure. Characterized by having one of the most compact design and size on the market and being particularly dependable and low-priced, the SMT8B is especially suited for low-pressure applications, like cooler equipment and oil filtration.

SMAPI (API676)



- *Fluid Types: fuel oils (HFO, MDO, LFO, MGO), bunker oils, furnace oils, synthetic fluid or emulsions, mineral oils, ecologic fluids*
- *Viscosity: from 2 to 10.000 cSt*
- *Outlet Pressure: up to 80 bar*
- *Inlet Pressure: from -0,7 bar to 1,5 bar*
- *Flows: from 4 to 1.800 L/min (from 1.800 to 3.200 overbusted)*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 52 to 68 dB (A) at 2.950 rpm*
- *Temperature Range: from -20° C to +180° C*

This pump is especially suited for the following applications:

- Industrial
- Lube Services
- Marine (Boiler Ignition/Feeding)
- Oil & Gas
- Power Generation



Did you know? Settima SMAPI API676 pumps were utilized for diesel oil transfer during to only voyage of the FSRU **Toscana**, the colossal floating gas storage/production facility offshore Livorno. All the previous pumps were unable to manage the extreme stress of fuel injection and power generation onboard, and they failed. Coincidentally, **Settima** (meaning 'seventh' in italian language) was the seventh company appointed for the job, and the first one to succeed!

SFO (fully compatible with IMO ACE pumps)

- *Fluid Types: mineral oils, synthetic fluid or emulsions, bunker oils, furnace oils, ecologic fluids, fuel oils (HFO, MDO, LFO, MGO)*
- *Viscosity: from 0,2 cSt*
- *Outlet Pressure: up to 40 bar*
- *Inlet Pressure: from -0,7 bar to 1,5 bar*
- *Flows: from 12 to 75 L/min at 1.450 rpm*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 50 to 58 dB (A) at 2.950 rpm*
- *Temperature Range: from -20° C to +200° C*



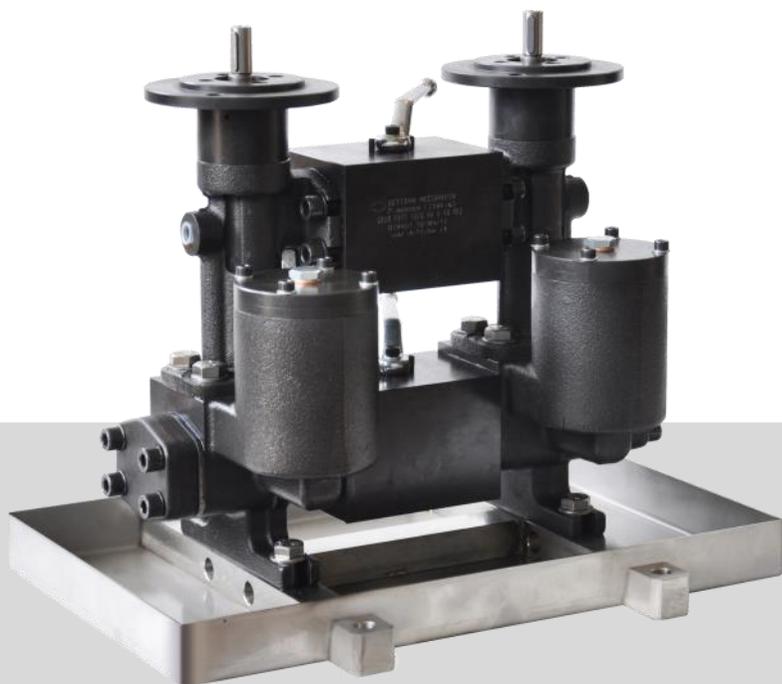
This pump is especially suited for the following applications:

- Industrial
- Lube Services
- Power Generation
- Tool Machines
- Marine (Boiler Ignition / Feeding Applications)
- Cooling
- Filtration



Did you know? Settima SFO has been designed with the precise purpose of being compatible with most installation specifics on the marine market. *Settima* managed to build the SFO with an eye on the final price of the product, lower than most of its competitors, and with the usual high quality and high reliability standard for all *Settima* products, to bring together quality and cost-efficiency over a competitive market.

FOTP



- *Fluid Types: fuels, heavy fuels (HFO, MDO, MGO, DMA, DMB, DMC, DMZ), marine fuels, residual fuels, DMX fuel (ISO 8217 compliant)*
- *Viscosity: from 0,2 cSt*
- *Outlet Pressure: up to 80 bar*
- *Inlet Pressure: from -0,7 bar to 8 bar*
- *Flows: from 8 to 30 L/min at 3.000 rpm*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 55 to 58 dB (A) at 2.750 rpm*
- *Temperature Range: from -20° C to +200° C*

This pump is especially suited for the following applications:

- Marine (Boiler Ignition/ Feeding Applications)
- Oil & Gas
- Power Generation



Did you know? Settima FOTP, thanks to its reliability and to the fact it can be paired with the **Seal-Less Magnetic Coupling**, thus ensuring a clean and safe workspace, has been adopted by one of the largest marine boiler manufacturer in the world, to be used on its installations!



SM

SMU (for USA market)

- *Fluid Types: mineral oils, synthetic oils*
- *Viscosity: from 10 to 2.000 cSt*
- *Outlet Pressure: up to 80 bar*
- *Inlet Pressure: from -0,7 bar to 3 bar*
- *Flows: from 8 to 1.200 L/min at 2.950 rpm*
- *Shaft Speed: from 500 to 3.600 rpm*
- *Acoustic Emissions: from 58 to 77 dB (A)*
- *Temperature Range: from -20° C to 100° C*



This pump is especially suited for the following applications:

- | | |
|---------------------|---------------------|
| ▪ Disabled Lifts | ▪ Parking Systems |
| ▪ Freight Elevators | ▪ Platform Lifts |
| ▪ Home Lifts | ▪ Submersible Pumps |
| ▪ Industrial | |



Did you know? Settima SM is the oldest pump designed by Settima, on the market since 1978. As a statement of its sound and reliable design, the SM pump has changed little over its almost 40 years of service, except obviously for the many technical innovations adopted and the use of new, more advanced materials. In 2013 Settima received a request for a new SM pump to replace the old one, which just broke up. The original SM pump was installed in 1982!

SMTU (for USA market)



- *Fluid Types: mineral oils, synthetic oils*
- *Viscosity: from 46 to 9.200 SSU*
- *Outlet Pressure: up to 1.160 PSI*
- *Inlet Pressure: from -10 PSI to 40 PSI*
- *Flows: from 2,5 to 317 gpm at 1.750 rpm*
- *Shaft Speed: up to 3.600 rpm*
- *Acoustic Emissions: from 58 to 77 dB (A)*
- *Temperature Range: up to 230° F*

This pump is especially suited for the following applications:

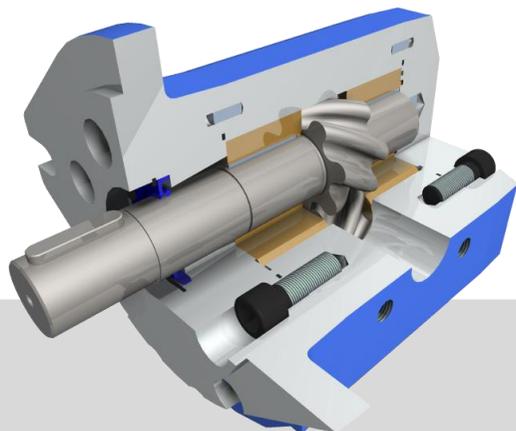
- | | |
|---------------------|-------------------|
| ▪ Disabled Lifts | ▪ Lube Services |
| ▪ Freight Elevators | ▪ Parking Systems |
| ▪ Home Lifts | ▪ Platform Lifts |
| ▪ Industrial | |



Did you know? *Settima* SMTU has been specifically designed for the USA market, and any market based on United States customary units or English units. Based on the tried and tested design of *Settima* SMT, the SMTU, when installed with the appropriate pulleys systems, can reach very high tensions and manage considerable loads.

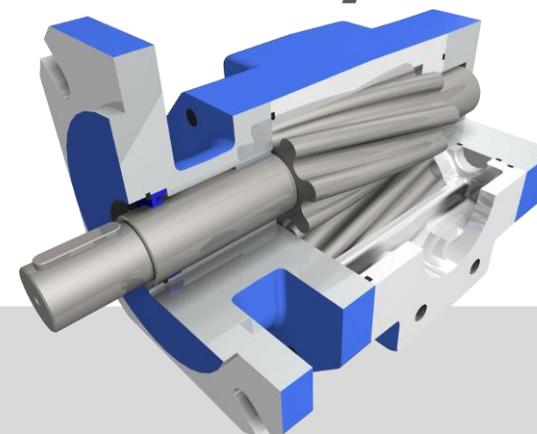
CONTINUUM® NO-NOISE product range overview:

*For high-pressure, no-noise
fluid power operations*



The **CONTINUUM® no noise helical rotor pump** has been developed by **Settima** in 2003. Its innovative concept is patented in many countries. The **CONTINUUM® pump** soon became a point of reference for no-noise, low-pulsations high pressure applications, up to 275 bar in continuous operation and with a maximum peak of 300 bar. The **CONTINUUM® pump** is able to operate for a multitude of applications, spacing from industrial to mobile, to environmental industry, and in all applications where low noise emissions are mandatory for a safe environment.

*For low-pressure, no-noise
fluid transfer operations*



The **2VHL CONTINUUM® no noise helical rotor pump** has followed the step of its predecessor, the **CONTINUUM® pump**, in providing the most silent and the lowest pulsating low pressure pump on the international market. Especially designed for use in extreme environments, the **2VHL CONTINUUM®** is complementary of the **CONTINUUM® pump**, being used for windmill plants and industrial applications up to 25 bar in continuous operation and with a maximum peak of 40 bar, where an extremely durable and reliable pump is of the utmost importance.

Did you know? *Settima* **CONTINUUM® pumps range** is the flagship of *Settima* ability of research and innovation. Bringing the helical form into the rotors of gear pumps, *Settima* was able to provide incomparable performance and silent operation. **CONTINUUM®** is able to provide a no noise service, and as such it can be used in environments in which silence is of fundamental importance. First of its kind, and unique worldwide due to its efficiency, reliability, no noise / no ripple characteristics, it brought *Settima* to the top amongst manufacturers of silent components establishing a new high standard that all of the others struggle to reach, without success.



Continuum[®]

The Power of Silence



- *Fluid Types: mineral oils, synthetic oils, ecologic fluids, emulsions*
- *Viscosity: from 5 to 800 cSt*
- *Outlet Pressure: up to 300 bar*
- *Inlet Pressure: from 0,8 bar to 6 bar*
- *Flows: from 3 to 330 L/min at 1.500 rpm*
- *Shaft Speed: from 100 to 6.500 rpm*
- *Acoustic Emissions: from 52 to 63 dB (A) at 2.950 rpm*
- *Temperature Range: from -15° C to 100° C*

This pump is especially suited for the following applications:

- Parking Systems
- Energy Saving Systems
- Marine (Movable Equipment Applications)
- Material Handling
- Tool Machines
- Mobile
- Presses
- Lift
- Forklifts

Did you know? **Settima** CONTINUUM pumps have been installed on the hi-tech gondola railway on the «Ponte della Costituzione» in Venice, better known worldwide as the «Calatrava's Bridge». The engineers working on the structure needed a comfortable and reliable mean to let disabled tourists and citizens have access on the bridge, and **Settima** CONTINUUM were chosen as the best no-noise pumps on the market!

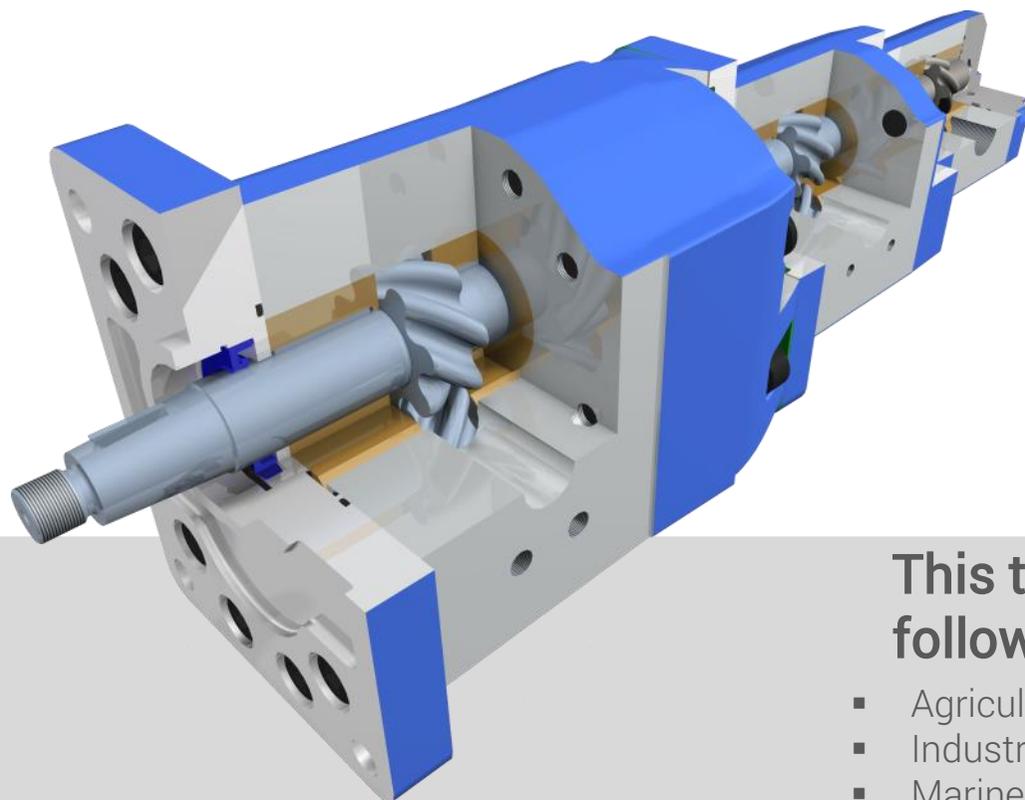




Continuum®

The Power of Silence

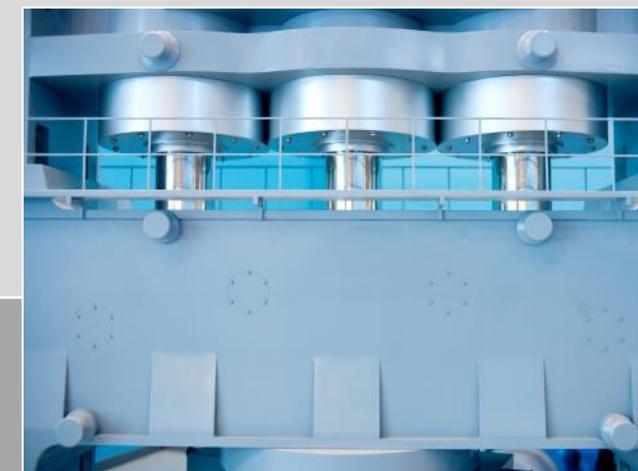
Continuum® pumps are suitable for multiple setups, whereby the drive shaft of the first pump is extended to a second, third or even a fourth **Continuum®** pump. Each pump is connected to another by means of coupling. Each pump has its own suction port and can manage fluids from different tanks. The technical specifications of a single pump apply also to multiple setups (for more info, see the catalogue on www.settima.it). The maximum speed is determined by the highest pump speed rate in use. In case of multiple setup configurations, it is recommended to use the largest displacement for the first pump. The front pump may be equipped with different types of flange and shaft.



This triple-pump system is especially suited for the following applications:

- Agricultural
- Industrial
- Marine
- Mobile
- Presses
- Tool Machines

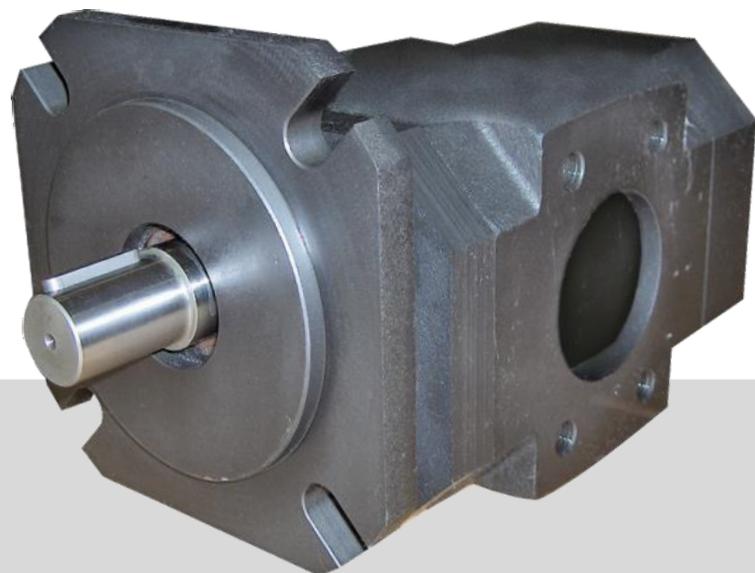
Did you know? *Settima* CONTINUUM® pumps can be combined in multiple configuration systems, to be used in closed loop circuits. This can be useful in applications like heavy-duty industrial presses, to drastically heighten the flow, or in mobile applications, where the double-, triple or quadruple-system is of critical importance for space- and cost-efficiency.





2VHL Continuum[®]

Go silently in extreme environments



- *Fluid Types: mineral oils, synthetic oils, emulsions, heavy oils*
- *Viscosity: up to 100.000 cSt*
- *Outlet Pressure: up to 25 bar (peak 40)*
- *Inlet Pressure: from 0,8 bar to 3 bar*
- *Flows: from 40 to 230 L/min at 1.500 rpm*
- *Shaft Speed: from 150 to 3.600 rpm*
- *Acoustic Emissions: from 52 to 63 dB (A) at 2.950 rpm*
- *Temperature Range: from -50° C to 150° C*

This pump is especially suited for the following applications:

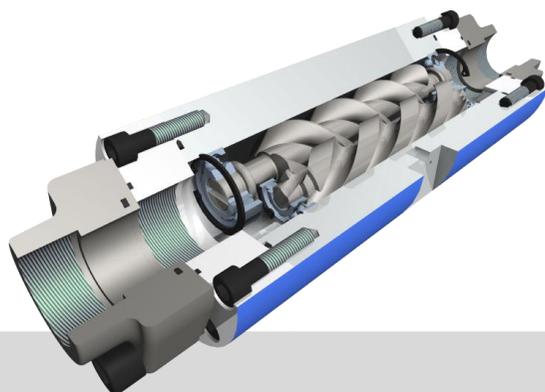
- Cooling
- Filtration
- Industrial
- Lube Services
- Windmill



Did you know? *Settima 2VHL CONTINUUM[®]* is one of the most durable pumps on the market. With its body made of cast iron, and its helical rotors manufactured with high-strength hardened steel, the *2VHL CONTINUUM[®]* can easily manage a fluid viscosity of 100.000 cSt in the most extreme conditions, without shortening its lifespan. The *2VHL CONTINUUM[®]* has become the pump of choice for difficult installations, like inside windmills on the open sea.

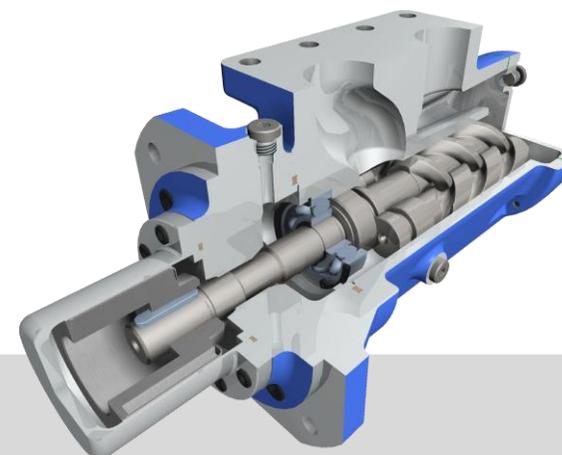
Other products overview

Flowmeters



The **Settima Flowmeter** is especially designed for the **metering of viscous fluids**. The unit works volumetrically according to the principle of screw transmitters, highly accurate and independent of viscosity. The medium passes a defined admission bore to get into the flow chamber and causes the revolution of the two screws mounted here. The revolutions are detected by a magnetically biased **Hall sensor** outside the flow chamber. Additional magnets in the flow chamber are not required. The flowmeter can operate **up to a viscosity of 40.000 cSt**.

Seal-less Magnetic Coupling



A hermetically sealed **magnetic coupling** is available (as option) for all pump models to replace standard seals. It is a permanent magnetic synchronous coupling able to transmit torque through magnetic forces between the internal and external rotor. Applying a magnetic coupling, the drive and the driven sides are hermetically separated. In case of critical media the magnetic coupling is a **reliable seal** and **prevents any serious leaking**. The magnetic coupling therefore is used to ensure **no media leaking** or if pumps are used **in dangerous environments** such as hazardous areas.

Did you know? *Settima* OTHER PRODUCTS are designed to complement the *Settima* pumps work on the field, always according to the **high standard of precision and safety** trademark of *Settima*. The **Flowmeters** are an important and **extremely accurate** tool of measurement, ideal in all the occasions where the flows level are to be kept under control. The **Seal-Less Magnetic Coupling** are a tool for safety on the workplace, designed to be mounted on all *Settima* products. They are able to prevent any fluid leakage, and for this reason they are particularly suited to be used in **hazardous areas**.

FLOWMETERS

- *Working Pressure: up to 350 bar*
- *Displacement: from 26 cc to 458 cc*
- *Flows: up to 2.500 L/min*
- *Temperature Range: from -50° C to +300° C*
- *Fluid Types: fuel oils (HFO, MDO, LFO, DMX), furnace oils, bunker oils, synthetic fluid or emulsions, mineral oils, ecologic fluids*
- *Materials Availables: aluminium, cast iron, stainless steel*



The **Settima Flowmeter** is an **extremely precise** instrument to accurately assess the flows of oils and fuels. It is installed on several pump test bench, where the need of a correct measure of flow is of paramount importance. Because of the volumetric functioning principle, the device is almost completely **independent of viscosity**. It can also operate and measure with both forward and reverse flow. The **Settima Flowmeter** is an excellent tool for **cost-sensitive applications**.

Did you know? **Settima FLOWMETERS** can be safely used even with multiphase pumps, handling gas and fluids up to 40.000 cSt, without losing accuracy or shortening its life-span.



SEAL-LESS MAGNETIC COUPLING



- *Working temperature: up to 300° C on request*
- *Inlet Pressure: 16 bar standard, higher on request*
- *Working RPM: up to 3.600*
- *Compatible Products: all Settima pumps*
- *Compatible Fluids: all standard fluids for Settima pumps*

The **Seal-Less Magnetic Coupling** has been used for a wide range of applications where the eventuality of a leakage, however minimal it could be, is to avoid at any cost, for health or safety reasons: this product has been designed to be used in the medical field, on a **computed axial tomography (CAT)** machine, and installed in several areas (for example, in **marine** and **oil & gas** applications) classified by the **ATEX Certification** as **requiring flameproof and explosion proof safety measures**.

Did you know? *Settima* SEAL-LESS MAGNETIC COUPLINGS PUMPS have been chosen by one of the world's leader in plastic injection molding machines as the safety measure of choice. *Settima* MAGNETIC COUPLINGS PUMPS are installed over the PIM machines used to produce one of the most loved toys for children all over the world, the **LEGO®** blocks. *Settima* scores another point in ensuring safer conditions at work and home, and a cleaner world!

(LEGO® is a registered trademark of LEGO® Group, and it is reported here for information purposes only)



Settima full complement of products:



SMT – high-pressure industrial, lube and tool machines



SMT16B – cooling, filtration and lube oil



SMT8B – compact cooling and filtration



SFO – shipyards diesel oil handling



SMAPI (API676) – wide range of marine and industrial applications



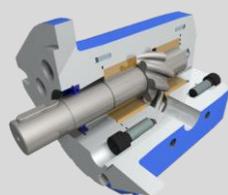
FOTP – high-reliability boiler ignition/feeding marine application



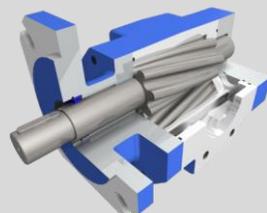
SMTU – USA lifts and freight elevators



SM – lifts and freight elevators



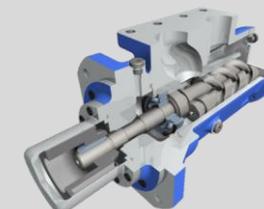
CONTINUUM® – high-pressure, no-noise fluid power applications



2VHL CONTINUUM® – low-pressure no-noise lube oil services



FLOWMETERS – high-pressure, high-precision flow measurement



MAGNETIC COUPLING – seal-less option for no medium leakage

Engineering and certification are a resource for our customers. If some certification is not available today, it could be available soon: ask Settima and we will answer.



COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =